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Further verification of the program was carried out by correcting from an elliptic to a parabolic orbit and from a hyperbolic to a parabolic orbit. The success of this experimentation, orbit correction through unit eccentricity, satisfies the definition of the unified theory. Tables 6, 7 and 8 list the values of the parameters for the elliptic case and the r.m.s. residuals in the observations after each correction for both the elliptic and hyperbolic runs. In all cases the observations were obtained over a 6 hour and 42 min. period. Thirty-two range observations were used in Table 6, 13 sets of  $\alpha$  and  $\delta$  and 15 sets of A and h for Table 7, and a combination of 32 range, 13  $\alpha$  and  $\delta$  and 14 A and h observations are included in Table 8. Tables 9 through 12 demonstrate the use of the program with range rate simulated observations.























